

AMENDMENTS TO THE ABSTRACT

Please replace the abstract at page 19 with the following amended abstract:

~~A~~In an embodiment of a method of determining a set of variables to receive  
value changes for a placement variable as part of a local search solution to an integer  
programming problem that models placement of services of a distributed application onto  
nodes of a distributed resource infrastructure. ~~The method can be used where a~~  
~~constraint has one or more polynomial terms of at least second order. In an embodiment~~  
~~of the present invention~~ an unsatisfied communication constraint is selected. The  
unsatisfied communication constraint includes a sum of terms where at least some of the  
terms comprise products of placement variables. Stores are created for allowable  
changes of value for the variables in the unsatisfied communication constraint. The  
unsatisfied communication constraint is parsed through by term. For each variable in a  
term, the stores are updated with a change in the term for each of the allowable changes  
of the value while maintaining other variables constant. A variable to receive the value  
change, and possibly a value for the variable, are chosen based upon the store which  
meets at least one improvement criterion.